

Outdoor Payment terminal (OPT) for cards with integrated pump controller function, "PT Premium"

Issued to

CODAB AB

Höjdrodergatan 24, SE-212 39 Malmö, Sweden

In respect of (part of instrument)

Payment terminal device for cards with integrated pump controller function and memory device, a purely digital self-service device (SSD) intended for use with fuel dispensers for motor vehicles.

Characteristics/rated operating conditions

The evaluated part of a measuring system for LOTW (Liquids Other Than Water) is a self service device for direct sales, interruptible, unattended delayed payment and price pre-setting, including a printer, an integrated pump controller and a memory device.

Accuracy class:	0,5 or 1,0
Ambient temperature limits:	-40°C to +40°C
Humidity:	condensing
Location:	open

In accordance with

- WELMEC Guide 8.8, Issue 2 "General and Administrative Aspects of the Voluntary System of Modular Evaluation of Measuring instruments under the MID",
- WELMEC Guide 10.7, Issue 1 "Guide on evaluating purely digital self-service devices (PDSSD) for sales to the public" and
- WELMEC Guide 7.2, Issue 2018 "Software Guide".

This Evaluation Certificate (EC) is the positive result of the applied modular approach under these WELMEC Guides, for a part of a measuring system for the continuous and dynamic measurement of quantities of liquids other than water.

This is not a MID Certificate (EU-type examination certificate according to 2014/32/EU), but the MID requirements have been applied. The complete measuring system shall be subject to a conformity assessment procedure as described in MID.

This Evaluation Certificate may only be used in combination with fuel dispensers and other SSD's (Self Service Devices) after permission of CODAB AB.

Applicable essential requirements of MID 2014/32/EU

- MID, Annex I Essential requirements
- MID, Annex VII (MI-005) Measuring systems for the continuous and dynamic measurement of quantities of liquids other than water (LOTW)

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RISE Research Institutes of Sweden AB | Certification

Box 857, SE-50115 Borås, Sweden

☎ +46 10 516 50 00 | certifiering@ri.se | www.ri.se

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Accred. no. 1002
Certification of
Products
ISO/IEC 17065

Harmonised standards and normative documents used

Applicable parts of the following normative documents referred to in the Official Journal of the European Union 2011/C33/01:

- OIML R 117-1 Edition 2007 (E), Dynamic measuring systems for liquids other than water

Further applied documents

- The Swedish Measuring Instruments Regulation, STAFS 2016:1
- The Swedish Regulations and Guidelines concerning Measuring Systems for the Continuous and Dynamic Measurement of Quantities other than Water, STAFS 2016:6
- RISE Certification Rules SPCR 181

Validity

Valid until 2024-04-19.

Miscellaneous

This issue of the certificate is the 2nd, extended, edition, and replaces earlier issues. The first edition was issued 2014-04-29, by SP Technical Research Institute of Sweden, who 2017 has changed its name to RISE Research Institutes of Sweden.

The principal characteristics, approval conditions are set out in the appendix hereto, which forms part of the approval document. All the plans, schematic diagrams and documentations are recorded under reference files 4P00762 and 9P03127. The evaluation report 4P00762-1 was issued in accordance with WELMEC Guide 8.8, Voluntary system of Modular Evaluation.

Martin Tillander

Kerstin Mattiasson

0. Conditions

The use of this Evaluation Certificate is limited to:

Combination with other parts of a measuring system (e.g. fuel dispenser) under the following conditions:

- One of the communication protocols defined in this certificate is used
- The other parts of the measuring system having an EU-type examination certificate, Evaluation Certificate or Parts Certificate covering compatibility with the communication protocol used, or
- The other parts of the measuring system having a National Type approval covering compatibility with the communication protocol used

Other parties may use this EC only with written permission of:
CODAB AB, Höjdrodergatan 24, SE-212 39 Malmö, Sweden.

The device must correspond with the following specifications:

1. Design of the device

1.1 Construction

Description

The Payment Terminal PT Premium is a part of a self service arrangement. It supports the following service mode and type of payment:

	Attended post-payment	Attended pre-payment	Unattended delayed-payment	Unattended pre-payment
OPT PT Premium	No	No	Yes	No

The outdoor payment terminal (OPT) is a self service device for unattended delayed payment (card), direct sales, in an interruptible measuring system. It includes price pre-setting, a printer, an integrated pump controller and a memory device.

CODAB PT Premium payment terminal accepts bankcards, credit cards and local cards in unattended service mode with delayed-payment. It handles authorization of fuel dispensers, stores sales transactions (long term storage) and print receipts. The terminal is connected via GPRS to an external head office system, called TapNet, for configuration, monitoring, diagnosis, setting of unit prices and further processing of transaction data.



CODAB PT Premium terminal
(G2)



CODAB PT Premium terminal
(G3 incl. bankcard and module NFC reader ("blipp"))

1.2 Components included

The hardware of the self-service device should comply with the EMC-directive and other applicable directives as specified in the Declaration of Conformity of the self-service device.

The components included in this chapter 1.2 have passed temperature and humidity tests, also see chapter 7.4.

Computer with touch screen	Advantech PPC-L61T-R71-XE *
Operating system	RDOS
Application software	CODAB R1 -9.0.7
Legally relevant modules checksum	See table below
Universal controller module	Nets Denmark A/S, INT3200*
Card reader	Magtek IntelliStripe 65*
PIN pad	Sagem SWE1315*
Printer	Zebra Technologies, KR203**
Pump interface, Wayne current loop	CODAB, Wayne CL C
Heater, incl. thermostat (foot)	STEGO, CSF 060, 06012.0-00, 100 W, +15°C – +25°C*
Fan heater (head)	STEGO, HVL 031, 03103.0-00, 150 W*
Thermostat for heater (upper compartment)	STEGO, KTO 011, 01140.0-00* Set point: +18 °C
Power supply, 24V	Powermec DR-100-24*
Power supply, 12V	Powermec DR-100-12*
Capacitor, 24V	F&T LF, 22000 µF*
GPRS router	ETM, ETM350C*
Ethernet switch	Oring IES-1050*
USB to RS232 converter	ULinx, 232USB9M*
Housing	CODAB, Drawing number M10559, 2010-12-13 and M10491, 2011-03-07

* or equivalent with CE-marking and suitable climate specification

** or equivalent, with CE-marking and suitable climate specification, under the condition that the functionality of the checking facilities for power off, decoupling/no serial communication, end of paper, is the same.

Software specification according to Welmec Guide 7.2:

Software type	U
Risk class	C
Extension	L, T, S, D

List of legally relevant software modules and checksum

Name	Checksum
TMIDCustomer	The checksum for all legally relevant modules together is: 72 00 or E1 C8 or 5F 48
TReceiptDeviceMID	
TMIDNotifyCompacFill	
TMIDNotifyATCLFill	
TMIDNotifyWayneFill	
TMIDNotifyDartFill	
TMIDNotifyTatsunoFill	
TMIDNotifyIFSFFill	
TMIDNotifyGilbarcoFill	
TMIDNotifyKoppensFill	
TMIDNotifyZapPetroFill	
TMIDNotifyHDXFill	

1.3 Optional equipment and functions subject to MID requirements

Not applicable

1.4 Technical documentation

For market surveillance the construction and included components are described in chapter 1.1 and 1.2. The metrological software is identified by the checksum, which can be accessed according to chapter 5.3.

1.5 Integrated equipment and functions not subject to MID

The following equipment may be connected to PT Premium (without change of this certificate):

- price signs (via interface box Poltech RD 1180-232 installed in PT Premium)
- alarms

2. Technical data

2.1 Rated operating conditions

Description

Payment terminal device for cards, intended for use with fuel dispensers for motor vehicles. Self service device for direct sales, interruptible, unattended delayed payment and price pre-setting, including a printer, a pump controller function and memory device.

Measurement range

Scale interval, printed volume: same as dispenser, but not smaller than 0,01 l
Scale interval, printed price: same as dispenser, but not smaller than 0,01 "PRICE"

Accuracy class of measuring system

0,5 or 1,0

Environments classes / influence quantities

The components included in chapter 1.2 have passed temperature and humidity tests, see chapter 7.4.

Ambient temperature limits: -40°C to +40°C
Humidity: condensing
Location: open

2.2 Other operating conditions

Not applicable.

3. Interfaces and compatibility conditions

The SSD, with the following interface board* and protocols as stated in the table below was examined and found in compliance with WGs 8.8, 10.7 and 7.2.

Serial interface for communication with dispensers. Communication with TapNet via GPRS.

Communication with other parts of a measuring system (fuel dispenser) using one of the following protocols:

SW protocol	Interface board/device
Wayne Current loop	232USB9M + CODAB, Wayne CL C
Wayne Dart	U485G (USB to RS485 converter)*
Tatsuno	U485G (USB to RS485 converter)*
Auto Tank	232USB9M + CODAB, ATCL*
Compac	232USB9M + Compac Interface board*
IFSF	CODAB 580, LON interface *
Gilbarco	CODAB 573, Current Loop 40 mA interface *
Koppens	CODAB 582, 4-wire interface *
Zap Petro	U485G (USB to RS485 converter) *
Petrotec HDX	U485G (USB to RS485 converter) *

* not included in the climate test

The payment terminal may only be used in a measuring system with:

- all volume and price indicating and printing devices having the same scale interval as the payment terminal PT Premium

4. Requirements on production, putting into use and utilisation

4.1 Requirements on production

No special requirements identified.

4.2 Requirements on putting into use

The following functional tests are performed in the factory:

- Verification of power circuitry in the PT Premium for power up and general stability
- Verification of interface to pumps
- Verification of transaction flows for all payment types
- Verification of receipt functionality
- Verification of screen, buzzer and other output functions
- Verification of interface to TapNet
- Verification of interface to additional devices if connected, like price sign

4.3 Requirements for consistent utilisations

No special requirements identified.

5. Control of the measuring tasks of the device in use

5.1 Documentation of the procedure

No special requirements identified.

5.2 Special equipment or software, if applicable

No special requirements identified.

5.3 Identification of

- Hardware

The construction and included components are described in chapter 1.1 and 1.2.

- Software

On each receipt the checksum xxxx is printed as "CRC: xxxx".

The legally software of PT Premium is identified by a version number and a unique CRC-16 checksum. The software version and the CRC-16 checksum can also be read through Function menu on the terminal (calculated in real time).

5.4 Calibration-/adjustment procedure

Not applicable.

6. Security measures

6.1 Sealing

The payment terminal is not sealed.

6.2 Data logger

Data base in PT Premium acts as memory device for unattended delayed payment with cards.

7. Labelling and inscriptions

7.1 Information to be borne by and to accompany the device

The marking plate/label mounted on the device shall contain the following information:

- the name and address of the manufacturer
- the serial number of the payment terminal and year of manufacture
- the designation or type name
- the Evaluation Certificate number, **SC0152-14**, of the payment terminal
- the ambient temperature range
- place for the verification sticker

(Information of the connected fuel dispensers is on the display)

7.2 Conformity marking (ref: MID 2014/32/EU article 19)

This Evaluation Certificate is not an EU-type examination Certificate. Therefore the payment terminal PT Premium **may not** be marked with the supplementary metrology marking "M xx", following the CE marking.

7.3 Further inscriptions, if necessary

No special requirements identified.

7.4 Evaluations carried out for this Evaluation Certificate

The evaluation under this certificate is recorded in Evaluation Report 4P00762-1 (referring to test and examinations in test reports SP PX07868-1, PX07868-2, PX07868-02-1rev1 and RISE 9P03127-02).

A summary of the evaluation under this certificate is given below.

Description	Result	Report/remark/notes
Relevant parts of the checklist OIML R117-1	*	SP report PX07868-1
Dry heat (non-condensing) (+40°C)	*	SP report PX07868-2
Cold (-40°C)	*	SP report PX07868-2
Damp heat, cyclic (condensing), severity level 2	*	SP report PX07868-2

WelmeC 7.2 ¹⁾	Description	Result	Report/remark/notes
Type P	Requirements on basic configuration	/	---
Type U	Requirements on basic configuration	*	SP report PX07868-02-1rev1, RISE 9P03127-02
Extension L	Requirements on data storage	*	SP report PX07868-02-1rev1, RISE 9P03127-02
Extension T	Requirements on interfaces	*	
Extension S	Requirements on software separation	*	
Extension D	Requirements on software download	*	
Extension I	Specific software requirements	/	---

¹⁾ Requirement/type according to WelmeC Guide 7.2

* Fulfils requirements / = Not applicable

8. Revision history

Certificate History		
Issue 1	2014-04-29	Certification of Outdoor Payment Terminal CODAB PT Premium (PT 4000 G2)
Issue 2	2019-12-18	The certificate includes a new model G3 with bank card and module NFC reader. CODAB has update of the Software description, evaluated acc to WelmeC Guide 7.2, 2018. Update of the certificate with references (as MID 2014/32/EU).